

U. S. DEPARTMENT OF COMMERCE  
LUTHER H. HODGES, Secretary  
WEATHER BUREAU  
ROBERT M. WHITE, Chief

# STORM DATA

SEPTEMBER 1963

Volume 5 No. 9



ASHEVILLE: 1963

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1963

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
ALABAMA			None reported						
ALASKA	No report received by printing deadline								
ARIZONA									
Tucson	3	7:00 p.			0	1	0	0	Thunderstorm
			Lightning struck a 13-year-old girl, knocking her unconscious for ten minutes.						
Douglas	7	8:00 p.			0	0	4	3	Wind, rain, hail
			Wind and hail caused minor damage to crops. Wind damaged utilities and property. Heaviest damage to highways and private property by flooding.						
Harquahala Valley	9	Evening			0	0	4	6	Rain and hail
			Heavy rain and hail severely damaged lettuce and cotton. Most of the reported property damage was flood damage to the irrigation system.						
Western Yuma and Mohave Counties	17	5:30 p.			0	0	5	5	Rain
			Remnants of tropical storm "Katherine" moved into western Arizona on the evening of the 17th, producing rainfall of locally heavy intensity. Heaviest property damage occurred in the Yuma area, where 2.04 inches of rain was measured in one hour at the Weather Bureau Airport Station, an all-time record for the station. Highways were washed out, many automobiles were caught in rising floodwaters and suffered severe water damage. Many homes and businesses were flooded. Cotton and alfalfa fields were inundated and most of the fall lettuce crop had to be replanted.						
ARKANSAS									
Brinkley area, Monroe County	3	3:50 p. to 4:50 p.	?	?	0	1	3	4	Lightning, rain and wind
			Thunderstorm moved southeast. Lightning struck a residence and a woman was injured by flying glass from a shattered mirror. Wind damaged rice crop.						
Mena, Polk County	3	Afternoon	?	?	0	1	0	0	Lightning
			Man struck by lightning while working near his home. Injuries amounted to shock and a severe headache.						
North Little Rock, Pulaski County	3	Afternoon	?	?	1	0	0	0	Lightning
			A boy was killed by lightning in a picnic area.						
Stuttgart area, Arkansas County	5	7:15 p. to 9:15 p.	?	?	0	0	4	4	Wind and rain
			Thunderstorms moving southeast damaged the Municipal Airport. About 5% of the area's rice crop was drowned by rain.						
Waldo area, Columbia County	4	7:07 p.	?	?	0	0	0	0	Funnel cloud
			Pilot reported seeing funnel cloud in thunderstorms which were moving southeast.						
CALIFORNIA									
Southern half of State	4-5				0	0	4	4	Rain and lightning
			Desert roads were flooded, drying raisins were damaged, trees and utility lines were downed, forest and brush fires were set.						
Southern and central California	12-13				0	0	3	4	Rain and lightning
			Local flooding, fires set, utilities damaged, tomato crop damaged and a cannery damaged.						
Orange County	16-17				0	0	3	0	Heavy surf
			Beach properties damaged.						
Southern half of State	17-18				0	0	4	7	Rain and wind
			Drying raisins and ripening dates suffered heavy damage, local flooding, wind damaged buildings and trailers near Brawley, tomato crop damaged in San Diego County.						
COLORADO									
Entire state	20-21	Early AM of 20th.			0	0	5	4	Heavy rain
			Heavy rain accompanied by hail in some areas damaged roads, bridges, buildings and crops in scattered areas over the state. Rain was extremely heavy in the Byers, Deartrail and Limon area where unofficial amounts up to 5 inches were reported. Roads were inundated and approaches to bridges were washed out; some damage to late crops was reported. In southeast Denver, heavy rain and hail caused local flooding. Walsenburg had 3 inches of rain that flooded streets, basements and homes. In scattered areas of central western Colorado, heavy rain washed rocks and debris on roads.						
CONNECTICUT	No report received by printing deadline								
DELAWARE	None reported								
FLORIDA									
Mexico Beach Bay County	1	Afternoon			1	1			Lightning
			Lightning struck two persons while standing on a jetty during thunderstorm.						
West Palm Beach Palm Beach County	2	Afternoon			0	0			Funnel Cloud
Central and Southern Gulf of Mexico Coastal Areas	29	Entire Day			0	0	5	0	Wind
			Low pressure area developed in Gulf of Mexico and moved north-eastward during day. Strong winds, high tides and locally heavy rains buffeted entire Gulf Coast throughout day. Abnormally high tides caused considerable beach erosion, flooded low lying beach areas and forced the evacuation of some residential areas. Tides ran 3 to 4 feet above normal in Fort Myers area and 4 to 6 feet above mean low water in the Tampa-St. Petersburg area. Winds along coast reached 50 mph in gusts with many areas reporting sustained south-westerly winds near 40 mph.						
Arizyle Walton County	29	Morning	5	150	0	0	3	0	Tornado
			Tornado travelled northeastward through farming area damaging several farm buildings.						
GEORGIA									
Emmanuel, Jenkins and Burke Counties	28	4-5:30 p	50	100	0	5	5	3	Tornado
			Storm apparently developed just west of Swainsboro in Emanuel County and caused considerable damage to roofs, trees and other property as it moved northeastward through and over the town. It touched down in two other sections of rural Emanuel County, damaging several farm buildings. The next major damage occurred three miles north of Millen in Jenkins County where about 15 houses were destroyed or heavily damaged and a golf club pro shop was wrecked. The storm reached the surface again near Sardis in Burke County. Five people were injured when their house was demolished. Several other buildings were destroyed in this area. Additional minor damage was reported along the storm's path as it moved north-eastward into South Carolina near Girard. Trees were uprooted and utility lines were damaged at many points along the storm's 50 mile hit and miss path through Georgia.						
Quitman, Brooks County	28	8:30 p			0	0	4	0	Wind and rain
			A warehouse was unroofed and many other buildings damaged by wind and falling trees. A large number of giant oak trees were split or blown over throughout the City and utility lines were heavily damaged. About four inches of rain accompanied the windstorm.						
HAWAII									
Honolulu	27	11:30 a.							Funnel cloud
IDAHOO									
Vicinity of Malad	6-7						2		Rain, lightning
			Roadway washed over in several places in both Elkhorn and Deep Creek areas in heavy rainstorms afternoon of 6th. Large rocks carried onto fields; newly seeded fields cut and gullied. Over 70 tons of baled hay destroyed by lightning-caused fire same afternoon at St. John. On Saturday afternoon, lightning struck telephone pole at fairgrounds in Malad, slightly injuring two men working in nearby booth.						
South-Central Areas	9	Night					4		Lightning
			Lightning storms - "worst in a long time" - covered most of Magic Valley. Roof of church in Shoshone destroyed by lightning-caused fire. Lightning also struck three places in Wendell.						
Dubois	10	Early a.m.					5		Lightning
			Grain elevator leveled by fire; 30,000 bushels of wheat destroyed. Lightning may have struck before midnight, but fire not discovered until 1:30 a.m.						
Gooding	20							4	Rain, hail
			Heavy rain (1.29 at Gooding Airport in 24 hours) flooded streets, flattened many fields of uncut hay. On farm northeast of city, about 1/2 of clover seed and bean crops were ruined by hail.						
Salmon	22	Evening					4		Wind
			Two outer walls and an inner partition of concrete-block building under construction were toppled by high winds.						
ILLINOIS									
Ogle County	2	8 p	10	10	0	0	0	0	Tornado
			First damage was to house trailer and home at Byron. Next damage occurred at two farms near Holcomb. Complete path between Byron and Holcomb could not be traced, either because funnel lifted or for lack of trees and buildings along projected path. A two mile path was established between farms in Holcomb area where damage through corn field and between buildings indicated a width of from 10 to 20 feet. Funnel cloud was sighted. Direction of travel apparently toward ESE.						

See reference notes at end of table.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1963

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					KILLED	INJURED	PROPERTY	CROPS	
<b>INDIANA</b>									
Larwill and Columbia City (Whitley County) to Yoder (Allen County)	12	7:10 a.			0	0	5	C	Wind, hail
<p>Damaging thunderstorms struck an area from Larwill (Whitley County) southeastward to Yoder. The hail damage path extended generally from Larwill, through Columbia City to Arcola with a width of about four miles. Damage to greenhouses, roofs, and cars as hail the size of golf balls pelted the area may total several hundred thousand dollars. Potent winds rolled a house trailer over east of Roanoke, reduced to rubble a large barn north of Yoder, blew out the end of a greenhouse in Yoder, and tore down trees and power lines.</p>									
Harrison County State Forest	29	morning			1	0	0	0	Lightning
<p>Youth was struck by lightning while picnicking.</p>									
<b>IOWA</b>									
Burlington	28	5:18 p.					4		Wind
<p>40 mph winds crumbled a 275 foot wall of cement blocks, plus tree and line damage.</p>									
<b>KANSAS</b>									
Rush County	1	6:52 p.							Tornado
<p>One funnel cloud was observed to touch ground four times about 40 miles southwest of Russell.</p>									
Russell County	1	6:55 p.							2 funnel clouds
<p>A funnel cloud was sighted 10 miles west of Russell and a second funnel about 3 1/2 miles south of Russell.</p>									
Lane County	2	3:26 p.							Tornado
<p>A tornado was observed near the Lane-Finney County line during a heavy thunderstorm.</p>									
Hodgeman County	2	6:00 p.							Hail and a funnel cloud
<p>One-inch diameter hailstones did considerable damage to roofs and gardens in and near Jalore. A funnel cloud was reported south of Hanston.</p>									
Ellsworth County	2	7:52 p.- 8:00 p.	2						Funnel cloud
<p>A funnel cloud was watched for about 2 miles as it moved northeast about 5 miles northwest of Ellsworth.</p>									
Franklin County	2	8:30 p.- 9:00 p.							Severe wind
<p>A severe northwest wind blew over a barn and several smaller farm buildings and flattened 90 acres of corn one mile southwest of Richmond.</p>									
Northwest Counties	3	5:00 p.- 7:00 p.					5		Tornado, funnel cloud, severe wind and hail
<p>During a severe thunderstorm over a wide area, a small tornado and severe winds of 90 mph damaged buildings and trees in and near Colby. A funnel cloud was sighted 5 miles east and 5 miles north of Levant, moving northeast. Wind and hail stripped trees and damaged feed crops in northern Wichita County.</p>									
Jefferson County	4	3:00 a.							Small tornado
<p>A small tornado struck near Williamstown, damaging many trees and several farm buildings.</p>									
Finney County	4	6:00 p.							Funnel cloud
<p>A funnel cloud was observed for a few minutes about 10 miles south of Garden City.</p>									
Gove County	7	night							Electrical
<p>A heavy thunderstorm with severe and prolonged lightning resulted in the loss of several head of livestock over the county. Numerous damages to appliances and electric wiring were also reported in and near Quinter.</p>									
Sherman County	7	4:00 p.- 4:25 p.							Hail, severe winds, electrical and heavy rains
<p>Hailstones 1 1/2 inches in diameter whipped by 46 mph northeast winds broke windows and caused other rather minor property and crop damage. Hail fell for 12 minutes. Sharp lightning damaged some wiring and the highway was flooded in low places by heavy rain. The storm occurred in and near Goodland.</p>									
Franklin and Linn Counties	10	6:00 p.- 7:00 p.							Electrical and hail
<p>Some hail 1/2 inch in diameter near Ottawa and Round City caused only minor damage. Lightning damaged power and telephone lines and struck a hay barn south of Ottawa.</p>									
<b>KANSAS (Cont'd)</b>									
Labette County	11	8:00 a.- 8:15 a.							Lightning and small tornado
<p>In Parsons several lightning strikes disrupted telephone service and damaged power line transformers. A barn 2 miles south of Parsons appeared to explode when lightning struck. A small tornado struck a mile south of Parsons damaging trees and several buildings.</p>									
Linn County	17	night	7				*2		Hail
<p>Crops were damaged from 5 miles southwest of Cadmus to about 2 miles north of town.</p>									
Finney County	24	afternoon					1		Electrical
<p>A 17-year-old boy was struck and killed by lightning south of Garden City.</p>									
<b>KENTUCKY</b>									
Henderson County, Henderson area	12	Aftn					1	5	Lightning
<p>A child was killed by lightning in the front yard of his home. Lightning killed several cows, and fire apparently caused by the lightning destroyed a large home.</p>									
Northern counties	12	Night						4 4	Hail, lightning, wind
<p>Damage at scattered locations was due to hail, lightning and wind associated with thunderstorms over a large area of northern Kentucky. Wind and hail damaged tobacco in Shelby, Clark and Montgomery Counties. Wind unroofed a barn, and downed trees and utility lines in Montgomery County. Lightning killed 8 cows in Mercer County. Fire set by lightning damaged 2 houses; one in Fayette County and one in Fleming County.</p>									
<b>LOUISIANA</b>									
Coastal area	16- 17						1	0 4 5	Hurricane, high tides, rain
<p>As Hurricane "CINDY" developed and approached the Texas Coast, oil companies ordered offshore work barges along the Louisiana Coast to safe anchorage (7 am), but discontinued evacuating personnel from oil rigs as high waves developed. One rig reported 25-35 ft. waves and 55 mph winds. One man, who disappeared from crew boat south of Cameron, was later found drowned. Coastal area from Johnson Bayou east to Grand Chenier ordered evacuated by Cameron Parish authorities (2:30 pm). Waters, driven by wind, gradually rose in coastal area and with rising tides cut off some communities. On Tuesday, water approached to near main business section of Cameron, but fell before any extensive damage was done. At Holly Beach, 6 W of Cameron, some camps and roads badly damaged. Rain heaviest on 17th after "CINDY" moved inland midway between Galveston and Port Arthur, Texas. At 10 am, Cameron Parish Sheriff allowed evacuees to return. Most crop damage due to heavy rain; some rice downed, sprouted and rotted. Considerable amount of sugar cane lodged. Newspaper reported peak gust at Cameron near 45 mph; further inland winds were less. Some 6,000 Louisiana residents reported to have moved inland from coastal areas.</p>									
Plaquemines Parish, lower section		Last of month							Gulf water intrusion
<p>Gulf water intrusion in lower Plaquemines Parish made water unsuitable for drinking, (Venice, Burge, etc.). U.S. Corps of Engineers expects salt content in Mississippi River to continue for another month.</p>									
<b>MAINE</b>									
State	12	Evening					0 0 4 0		Wind
<p>Falling trees and limbs caused a number of utility outages and miscellaneous minor damages.</p>									
Extreme Northern Portion	12- 13	Night					0 0		Unseasonable snow
<p>An unseasonably early snowstorm beginning as sleet in some areas, near midnight, produced up to 2 inches in the upper St. John Valley and locally from 4 to 6 inches in the Stockholm-New Sweden area.</p>									
<b>MARYLAND</b>									
Near Deer Park, Garrett County	3	9:00p.m.					0 0 4 0		Lightning
<p>Fire, believed to have been caused by lightning, completely destroyed home.</p>									
<b>MASSACHUSETTS</b>									
Southeast Coast, Cape Cod, and Nantucket	6						0 0 4 0		Wind
<p>Northeast coastal storm caused heavy seas, abnormally high tides, and strong winds with gusts to 40 m.p.h. or more. Some flooding of lowlands, especially on Nantucket. Many small craft damaged, torn from moorings, or swamped. Some pier and dock facilities damaged.</p>									
State	12	Evening					0 1 4 0		Lightning, wind
<p>One minor injury by nearby lightning strike. Considerable loss from lightning-set fires. Church and steeple damaged by lightning at Conway. Widespread instances of wind-fallen trees and limbs. Utility outages and a crushed auto resulted.</p>									

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<b>MASSACHUSETTS (Cont'd)</b>									
Warehick	12	7 P.	1	50	0	0	3	0	Tornado
Tornado funnel first sighted aloft about 2 1/2 miles from where it hit the ground. Damage path mainly through woods, but one building damaged by falling debris.									
Hyannis	23		5	1 mile	0	0	0	0	Hail
Remarkable occurrence of two hailstorms on same day in one spot. First occurrence 6:35-6:45 A.M. and second 1:05 to 1:10 P.M. Average diameter of stones 1/2 inch, with largest 3/8 inch.									
Cape Cod to Nantucket	23	Midday			0	0	0	0	Waterspouts
Waterspouts between Nantucket and Cape Cod from 11 A.M. to 1 P.M. were observed by airline pilots, the U. S. Coast Guard, and others. Number of spouts unknown.									
<b>MICHIGAN</b>									
Charlevoix	21	10:00 a.							Funnel aloft
Funnel aloft observed over Lake Michigan.									
Elmira	21	11:05 a.							Funnel aloft
Funnel aloft observed by commercial airline pilot.									
<b>MINNESOTA</b>									
None reported									
<b>MISSISSIPPI</b>									
State		Month			0	0	0	?	Dry spell
Most locations in each state division reported below normal precipitation. Sporadic variations of less than one-quarter inch to over two inches in rainfall totals occurred sometimes within 30 miles. Hind County approved as U.S.D.A. emergency area because of severe drought. Clarksdale's 0.02 inch was its lowest for any month since September 1931, when a track occurred. Vicksburg's 0.11 inch was its third driest September since 1872, and its driest month since October 1952, when 0.03 inch fell.									
<b>MISSOURI</b>									
Pendscot County	3	evening					4		Thunderstorm
Several homes and farm buildings damaged by wind.									
Adrian Bates County	3	early morn					4		Thunderstorm
House completely destroyed when hit by lightning.									
Harrisonville Cass County	10	11 AM					4		Thunderstorm
Salvage company building destroyed by fire after being hit by lightning.									
Northern Callaway and Audrain Counties	10-11	late evening, early morning					4		Thunderstorm
A house, two barns damaged by lightning. Several head of livestock killed by lightning.									
Cape Girardeau Area	12	afternoon					4		Thunderstorm
Heavy damage to power plant in Cape Girardeau when hit by lightning.									
<b>MONTANA</b>									
Vaughn (5 miles north) Cascade County	14	Morning	?	?	0	2	0	0	High Wind
A gust of wind blew a camper off the bed of a pickup truck. Force of wind so strong it straightened out the eyebolts holding the camper to the unit. Two women riding in the camper were injured.									
<b>NEBRASKA</b>									
Near Fairbury	20	8:20 a.	Spot	Spot	1	0	0	0	Lightning
Lightning struck and killed the operator of a farm tractor.									
<b>NEVADA</b>									
None reported									
<b>NEW HAMPSHIRE</b>									
State	12	Evening			0	0	4	0	Wind
Falling trees and limbs caused a number of utility outages and miscellaneous minor damages.									
<b>NEW JERSEY</b>									
Ship John Lighthouse, Delaware Bay	29	7:30a.m.			1	0			High winds and rough seas
High winds and rough seas ripped apart a barge anchored near Ship John Lighthouse in Delaware Bay. The barge watchman was drowned while desperately trying to board a lifeboat from the crumbling barge which was 300 feet from the lighthouse. The lighthouse is situated on an outcropping of rocks in the middle of the Delaware Bay channel, about 5 miles from New Jersey's Cumberland County shore.									
<b>NEW MEXICO</b>									
None reported									
<b>NEW YORK</b>									
Pendleton, Niagara County	3	6:40 p.m.			0	0	3		Tornado
Northwest of the Buffalo area a small tornado dipped down briefly from a dark and threatening thunderstorm cloud and was accompanied by a heavy downpour of rain. The twister dipped several times out of the cloud before briefly touching at 7125 Bear Ridge Road. Heavy equipment moved about, trees blown down in twisting fashion, one small building flattened and other small damages.									
Niagara County	12				1	1	0	5	C
High and destructive winds and heavy rain caused extensive damage to the Niagara fruit crop and reported as a major blow to the fruit crop. Some farms reported a 50% dropping of peaches and apples. Newly built block wall blown down, one workman killed and one injured. Some damage from wave and wind action on the nearby Lake Ontario shores with loss of one sailboat.									
<b>NORTH CAROLINA</b>									
Robeson, Sampson Counties	29	3-5 am	50	100	0	0	5	0	Tornado
Apparently one of the same storms that affected South Carolina earlier on the same night, or one of the same family. Struck down briefly at three points in a direct line northeast of the path of the South Carolina tornadoes. Demolished two barns and damaged a dwelling in the Saddletree section of central Robeson County at about 3 a.m.; did similar damage near St. Pauls a few miles northeast about 20 minutes later; struck near Newton Grove about 40 miles further northeast about 5 a.m., demolishing several outbuildings, damaging a home, and uprooting or twisting off a strip of trees.									
Cumberland County	29	3:30-4am	10	200	0	0	5	0	Tornado
Of the same storm system as the above; moved northeastward along a parallel path about 25 miles to the northwest. Crossed Fort Bragg, demolishing two buildings and twisting off trees; then moved over the town of Spring Lake. Apparently remained slightly off the ground here, as only five or six houses were demolished, while shingles were stripped from 100 or more. Perhaps one in ten of these suffered minor structural damage.									
Famlico County	29	7:14 am	5	30	0	0	4	0	Tornado
Another of the same family of tornadoes as the two above, this storm moved northeastward along a short path parallel to the others and about 60 miles southeast of a line extended through the path of the first listed. Heavily damaged two frame houses and demolished several small outbuildings; cut a narrow strip through the woods, twisting off trees a foot or more in diameter. Funnel seen, moving up and down as it approached one of the buildings it demolished a moment later. Heavy rain, thunder and lightning with the storm.									
<b>NORTH DAKOTA</b>									
None reported									
<b>OHIO</b>									
Galena	12	1 PM	Short	Narrow	0	0	0	2	C
A severe hailstorm of brief duration passed over the southern part of Galena breaking several large panes of glass in a greenhouse, breaking a window in the high school and denting several cars. While most of the hailstones were small, some were very large. One was measured as 13/4" in diameter.									
Columbus	12	1:45 PM	Short	Narrow	0	0	3	0	Tornado
A small funnel, associated with a roll cloud, struck Price Field damaging a light plane, and walls of a corrugated steel hanger. Definite signs of tornadic action were observed.									
Pickerington	12	2 PM	Short	Narrow	0	9	0	4	C
A small funnel cloud touched down briefly in open country just north of town. Severe damage was done to at least two barns and several smaller buildings on adjacent farms. At the grade school 9 children were injured slightly by flying glass as a window was broken by strong winds associated with the same storm.									
Broadway (Union Co.)	12	Early Afternoon	Short	Narrow	0	0	0	4	C
A small "twister" hit a farm on the edge of Broadway practically destroying one barn. A man working in the barn tells of seeing the funnel cloud approach, seeking safe refuge and watching the barn as it was lifted several feet and dropped. Farm machinery was heavily damaged. Hail accompanying the storm leveled corn and soybean fields.									

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<b>OKLAHOMA</b>									
Crescent, Logan County	3	About 6:45p.			0	1	0	0	Electrical
Lightning struck near Crescent High School and stunned one man. Five horses in a nearby lot were knocked down as lightning circled the fence around the horse lot.									
Major, Woods, Alfalfa, Garfield, Grant, and Noble Counties	4	1:00a.-7:00a.	80	*5-15	0	0	?	?	Rain and wind
Heavy belt of rains up to 4 inches reported from Dacoma to Kremlin, Hunder, and Billings. Unofficial amounts up to 8.0 inches reported five miles south of Cherokee and near Hunter with up to 7.0 inches reported in area six miles east of Hunter. Some flash flooding reported closing roads for a few hours in southern Alfalfa and northern Garfield and Noble Counties. Hard winds hit five farms along a strip two to three miles wide northeast of Fairview in Major County. One cow-barn was wrecked and numerous other out-buildings received ripped shingles and broken windows.									
Dover Area, Kingfisher County	5	Midnight-5:00a.			0	0	0	0	Rain
Heavy rains provided local unofficial amounts of over 5 inches. No damage or local flooding reported.									
Newcastle, McClain County	7	Morning			1	0	0	0	Electrical
One man was killed when struck by lightning as he sat fishing at the edge of a farm pond near Newcastle.									
Ponca City SNE, Kay County	7	4:10a.			0	0	4	0	Electrical
Lightning-set fire destroyed a home and its contents.									
Garvin, Pontotoc, Seminole, Hughes, Lincoln, and McIntosh Counties	11	2:45a.-9:30p.			0	0	4	4	Electrical, wind, and hail
Heavy damage to cotton from wind and 1/2-inch size hail along a 1/2-by 1-mile path eastward from Maysville, Garvin County, about 4:30p. Two 500-barrel oil tanks were destroyed by lightning near Pauls Valley, and three Angus cows were killed. One home in Ada, Pontotoc County, received heavy attic fire damage after lightning hit about 6:30 pm. Lightning struck two homes in Mewoka, Seminole County, with the resulting blaze at 2:45am, mostly destroying a residence while only minor damage resulted from a home hit at 5:40 pm. One farm was hit in the Butner area, Hughes County, where two cows were killed and a home and outbuilding damaged by lightning and wind. High winds were also reported at Stroud, Lincoln County, where gusts up to 100 MPH were unofficially recorded at the municipal airport which damaged one airplane. Scattered electrical damage mostly to telephones also occurred at Stroud. Damaging winds occurred at Hanna, McIntosh County, where three cows were also killed by lightning. Electrical damage 35 percent of \$50,000 total, hail 40 percent and wind 25 percent.									
Amber, Grady County	11	5:20p.			1	1	0	0	Electrical
Two men struck by lightning while fishing at a farm pond southwest of Amber. One man was killed instantly, while the second regained consciousness an hour later to go for help.									
Noble, Cleveland County	11	About 3:15p.	1	50	0	0	3	0	Tornado
Small tornado heavily damaged two farms along a east-southeastward path just southwest of Noble. Two dwellings were unroofed, one barn collapsed on stored hay, a second barn and its contents demolished, a windmill was bent over, and the remainder of the out-buildings destroyed or extensively damaged. A nearby farm had a storehouse unroofed, while beehives were blown over at another farm.									
Kiowa, Caddo, Comanche, Tillman, Stephens, and Jefferson Counties	11	3:00p.-11:00p.			0	0	4	4	Electrical and wind
Squall line moving south-southeast across area caused extensive lightning-set grass fires. Three such fires erupted on the Wichita Mountains Wildlife Refuge and one near Carnegie which burned over 2,640 acres of grass and pasture land and some wooded land. Some 300 acres of pasture burned over about seven miles west of the Lawton-Duncan "W" and south of the Central High community. Greatest damage occurred from five blazes which blackened 5,000 acres of grassland around Naurika. Winds up to 40 MPH whipped the flames until a .75-inch rain helped quell the fires. Lightning hit one home just southeast of Lone Wolf which burned out the electrical equipment and heavily damaged the interior of the home. One barn destroyed by lightning-set fire five miles southwest of Tipton. Two cows were killed by lightning near Naurika. Strong straight winds estimated at 50 MPH hit several farms south of Lawton and took a roof off a 60-foot shop, overturned a hay-barn, blew in a cement block wall on another shop, and damaged roofs, garages, and electrical lines. Damage from electrical 80 percent of \$36,000 total, and wind 20 percent.									
Custer and Washita Counties	11	5:45p.-8:15p.	20	*4	0	0	4	5	Tornado, hail, rain, and wind
Heavy thunderstorms moved southeast across southern Custer and northern Washita Counties. High, straight winds ripped off a barn roof and drove parts of it through the roof of a farm home just west of the south end of Peas Reservoir. Other damage was received in Clinton where winds ripped off a front porch roof, broke numerous tree limbs, bent many TV antennas, and blew in a brick wall and glass door at a west side hotel. Four persons saw a small tornado									
<b>OKLAHOMA (Cont'd.)</b>									
on the ground									momentarily in open country near Foss, with no damage reported. Hard rains totaled 1.57 inches at Foss Dam, 2.26 inches at Clinton, and unofficially 4.5 inches at Stafford as the blinding downpour reduced travel to a standstill along US86 between Elk City and Clinton. Greatest damage from 1/2- to 1-1/2-inch size hail that covered half of the ground and chopped cotton and maize plots to bits along a 8-by 1/2-mile path from just east of Stafford to 7 miles west. Damage from hail 80 percent of \$80,000 total and wind 20 percent.
Kiowa, Washita, and Caddo Counties	15-16	9:30p., 15th - 8:30a., 16th	50	*6-22	0	0	?	?	Heavy rain
Heavy rains produced totals of 4 to 5 inches over area bounded by a line running from just south of Saddle Mountain to Goteba, to Alfalfa, to just northeast of Lookaba, to near Fort Cobb, and returning to near Saddle Mountain. Lookaba recorded 5.00 inches, while other unofficial amounts ranged up to 5.20 inches 14 miles south of Carnegie, 5.65 inches at Saddle Mountain, and 5.87 at Fort Cobb Dam. Damage mostly from localized flash flooding causing wash-outs on some dirt roads.									
Kingfisher and Logan Counties	16	Early AM			0	0	?	?	Rain
Very heavy rains moved eastward across the Cottonwood Creek basin from the western half of Kingfisher County to the area southwest of Guthrie, with an average rainfall of 3.72 inches. A total of 3.66 inches was measured at Kingfisher, while Guthrie received 3.68 inches. Greatest amounts were unofficial totals as much as 7.25 inches reported in the Reading-Cashion area. Similar unofficial amounts were reported in some localities along the Cimarron River northeast of Kingfisher. Damage from local flooding limited to 17 structures such as small bridges and culverts.									
<b>OREGON</b>									
See data at end of table									
<b>PACIFIC AREA</b>									
None reported									
<b>PENNSYLVANIA</b>									
Near St. Marys (South Benzinger Twp.)	3	1:40 p.m.	12	100	10	6			Tornado
The tornado swept away some homes completely, moved others from their foundations, flattened garages, ripped roofs off many dwellings, upset and demolished home trailers and downed many trees. Damage totaled approximately one million dollars, while eleven minor injuries were attributed to the storm. A herd of fourteen cows were picked up by the storm and flung to the ground where they all died.									
Eastern Counties	3	afternoon & evening					4		Thunderstorms
A series of eastward-moving storms produced heavy rain and intense lightning in many areas. Lightning fired a number of buildings, while the heavy rain flooded many low-lying areas for a time. Strong winds broke several store windows and tore off a few metal porch roofs in the Harrisburg area.									
Allegheny and Westmoreland Counties	12	12:30 a.m.							Thunderstorms
Strong winds, accompanied by lightning, toppled many trees and power lines. Some trees fell across automobiles, damaging them extensively.									
Reading-Allentown Area	12				1		4		Thunderstorms
Near Reading a woman was struck and killed by lightning as she was walking across an open field during the storm. Several barns were fired and destroyed by lightning in the area.									
<b>PUERTO RICO</b>									
	26-27				0	0	5	6	Hurricane
Hurricane "Edith", after devastating the island of Martinique of the Leeward Islands, proceeded on a west-northwest course and passed approximately 150 miles south of Puerto Rico on September 26th and most of the 27th. During these two days hurricane "Edith" brought relatively moderate rains, strong winds and high waves to much of the island, particularly along the south and west coasts, which experienced gale force winds resulting in losses to agriculture and property. Some families were evacuated by the Civil Defense from the rough surf at numerous places along the coast, especially at "La Playa de Ponce" and "La Playa de Mayaguez" sections when flood threats developed.									
On the evening of the 26th, the course of hurricane "Edith" changed abruptly from west-northwest to north-northwest along the west coast of Puerto Rico. The center of the hurricane passed about 140 miles west-southwest of Cabo Rojo, P. R. As a result the southwestern tip of the island was the hardest hit area. Extensive flooding and wind damage to sugar cane fields and banana trees occurred between Cabo Rojo and Mayaguez. North of Mayaguez the effects of the storm decreased, with only minor flooding reported.									

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1963

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (FAROS)	NO. OF PERSONS		ESTIMATED DAMAGE		CHARACTER OF STORM
					KILLED	INURED	PROPERTY	CROPS	
RHODE ISLAND									
No report received by printing deadline									
SOUTH CAROLINA									
Spartanburg and Union Counties	6	Evening			0	7	3	0	Lightning
Scattered lightning caused 7 minor injuries, of which one was hospitalized.									
Springfield, 2.5 miles northwest, Orangeburg County	28	6:30 pm-6:35 pm	1/2	200	0	1	3	4	Tornado
Moved southwest to northeast - loud roars heard.									
Swansea, Lexington County	28	7:00 pm-7:05 pm	2	200	0	0	2	0	Tornado
Moved southwestward then curved eastward - loud roar and roll clouds.									
Mayesville, 6 miles south, Sumter County	29	1:10 am-1:15 am	5	500	0	0	4	0	Tornado
Moved from southwest to northeast - funnel observed.									
Effingham, Florence County	29	2:25 am-2:35 am	2 1/2	100	0	0	4	3	Tornado
Moved southwest to northeast - loud roars heard.									
Dillon, Dillon County	29	3:00 am-3:15 am	1 1/2	250-300	3	12	6	5	Tornado
Moved southwest to northeast - very loud roars heard.									
SOUTH DAKOTA									
Near Presho	3	6:30-7:30 p.	20	*1-1 1/2	0	0		5	Hail
Hail covered ground 2 inches deep. Average size of stones 1 inch with largest 3 inches. Storm moved from Presho SE to the White River.									
Near Canton	16	4:15 p.					4		Lightning
Lightning started fire which caused an estimated \$12,000 damage to a cattle barn and hay.									
TENNESSEE									
Near Butler, Johnson County	5	5:30 p.	8	*2	0	0	0	5	Hail and wind
Hail up to 1/2 inch in diameter covered the ground to a depth of 1 inch during thunderstorms which moved southeastward across the county just north of Butler. About 100 farms and 40 tobacco crops were damaged. Hail did extensive damage to tobacco and considerable damage to gardens, truck crops, and corn. Only minor damage by wind which blew down a few fruit trees.									
Memphis, Shelby County	12	Noon			0	0	4	0	Lightning
During a violent electrical storm lightning damaged a 23,000 volt bus and a large transformer at a power substation and shut down industries in North Memphis for about 3 hours.									
TEXAS									
4 W Simpson, Shelby County	5	1:30 p-*	*33	20	0	0	4	0	Tornado
A small tornado destroyed a large chicken house and damaged five others. One farm house was also damaged. Total damage estimated at \$5,000. The storm moved from southeast toward the northwest.									
Dallas County	5	1:21 p	short narrow	0	0	0	0	0	Tornado
A small tornado touched ground briefly between Wilmer and Hutchins in the south portion of Dallas County, then ascended rapidly back into the cloud.									
10 W Orange, Orange County	5	evening	?	?	0	0	4	0	Lightning
Two oil storage tanks 10 miles west of Orange erupted in flames from a single lightning bolt during a thunderstorm. The blaze spread to a third large tank before firemen brought it under control. Damage was estimated at \$10,000.									
Alpine, Brewster County	5	evening	?	?	0	1	?	?	Wind
Strong winds accompanying a thunderstorm smashed plate glass windows in a hotel dining room. One woman was cut by flying glass. Other display windows in the downtown area of Alpine were blown out by the wind.									
4 NE Sunset, Montague County	6	1:30 p-2:30 p	**67	17	0	0	4	0	Tornado, Lightning
A small tornado dipped down on the Syd Caswell farm four miles northeast of Sunset, unroofing a barn. At about the same time, lightning caused a fire that destroyed the Jesse Gibson home two miles east of the Caswell farm. Property damage from the tornado was estimated at \$500; and damage from the lightning, \$9,000.									
Burleson, Johnson County	6	2:30 p-2:45 p	?	?	0	0	?	?	Tornado
A tornado cut a swath across the George Brenson farm near Burleson, destroying a hay barn and water tank, and damaging two other barns and a farm house.									
Elless, Tarrant County	7	1:30 p-2:00 p	**600	?	0	0	4	0	Tornado
A small tornado dipped down into Elless, demolishing an auto repair shop and damaging the roof of a lumber yard. Four automobiles in the repair shop were extensively damaged. The tornado caused an estimated \$20,000 damage, and rain accompanying the storm caused an additional \$1,000 damage.									
TEXAS (Cont'd)									
Pampa, Gray County	7	afternoon	?	?	0	0	?	?	Wind
Thunderstorm winds estimated at 50 m.p.h. lashed the Pampa area. A house trailer in the northwest section of the city was tossed 40 feet and demolished. Several porches were ripped from houses. Some roof damage and Television antenna damage occurred. Flash flooding of streets was reported shortly after 4 p.m.									
Between Odem & Sinton, San Patricio County	9	1:10 p-	?	?	0	0	0	0	Tornado
A small tornado touched ground 2 to 3 miles east of U. S. Highway 77 between Odem and Sinton. There were no injuries or property damage.									
8 S Pampa, Gray County	9	4:00 p-5:00 p	?	?	0	3	?	?	Wind
Thunderstorm winds blew over a house trailer at an oil well drilling site 8 miles south of the city. In an area extending from about 1 1/2 miles south to 8 miles south of Pampa, eight buildings, including garages and barns were damaged, 17 utility poles were blown over, and three persons injured. Property damage extended over a relatively narrow area.									
Lamesa area, Dawson County	9	5:00 p-6:00 p	15	*10	0	0	?	?	Hail, wind, rain
Hail, wind, and 2.55 inches of rain caused extensive damage to about 1,500 acres of cotton in a 10 by 15 mile area about 15 miles south of Lamesa. The damaged area extended to Patricia. Wind gusts up to 70 m.p.h. damaged a few outbuildings and cotton trailers. Largest hailstones were the size of golf balls. The ground was completely covered with hail. In addition to the cotton crop, grain sorghums in the area were badly damaged.									
15 NW Midland, Andrews County	9	8:30 p-							Funnel aloft
Irrving, Dallas County	13	10:45 a			0	1	0	0	Lightning
A construction worker was knocked unconscious by a bolt of lightning as he was unloading a truck. He was treated and released at a local medical clinic.									
Arlington, Tarrant County	13	11:45 a			0	0	4	0	Rain
Torrential rains, up to four inches in the Fort Worth area caved in a 60 by 80 foot roof in the Arlington industrial district. About 80 employees were working inside the building when the roof fell through, but there were no injuries. Property damage was estimated at \$50,000.									
Southeast Texas	16-20				0	0	7	6	Hurricane Cindy
Hurricane Cindy developed rapidly from a low pressure center that was first observed about 150 to 200 miles east of Brownsville, at 9 a.m. on the 16th. The eye of the hurricane moved inland over High Island, mid-way between Galveston and Port Arthur at 7 a.m. on the 17th, accompanied by winds estimated at 80 m.p.h. The storm center became stationary just to the west of Port Arthur for 12 to 18 hours, resulting in torrential rains of from 15 to 23.5 inches in portions of Jefferson, Newton, and Orange Counties. In Texas, Hurricane Cindy caused no deaths or injuries, and only minor property damage can be attributed to wind or tide. However, flooding from the excessive rainfall, resulted in total property damage of \$11.6 million and agricultural losses of \$0.5 million. Most of the property damage occurred in the Beaumont-Port Arthur area of Jefferson County.									
Over water, highest winds were estimated at 80 m.p.h., and a peak gust of 80 m.p.h. from the north-northeast was recorded at East Beach Lagoon (near the eastern tip of Galveston Island) at 3:00 a.m. on the 17th. A peak gust, estimated at 80 m.p.h., was also recorded at Gilchrist, near High Island, at 3:30 a.m. The Galveston Weather Bureau Office recorded a "fastest mile" of 54 m.p.h. from the north-east, at 2:32 a.m., and a peak gust of 74 m.p.h., also from the north-east, at 2:16 a.m. The lowest sea level pressure along the immediate coast was 29.44 inches, observed at High Island, at 10:00 a.m. on the 17th. The highest tide was 4.6 m.s.l., observed at Pier 21, in the Galveston Channel, on the north side of the Island, at 3:10 a.m. on the 17th.									
The tropical storm center became stationary just west of Port Arthur for 12 to 18 hours, then moved slowly westward and southwestward through the Texas Coastal Plain, South Texas, including the Lower Rio Grande Valley received beneficial rains of one inch or more as a result of this unusual movement, although only light precipitation fell in the Middle Coastal section. Heaviest rainfall occurred at Deweyville, in the south portion of Newton County, where a three-day storm total measured 23.50 inches. A 24-hour total of 20.60 inches fell between 7:00 a.m. on the 17th, and 7:00 a.m. on the 18th. Other storm totals include Orange, 23.80 inches; Pipkin Ranch (Jefferson County), 20.75 inches; Texas Oil Sulphur, one mile south of Fannett (Jefferson County), 20.15 inches.									
Property damage caused directly by the storm occurred to piers, beach homes, and a few boats, between Galveston and Sabine Pass. Wave action destroyed the 800 foot pier at Gilchrist, and approximately one-half of the 1300 foot pier at High Island. The roof was blown off one business house in Gilchrist, and several business houses in Wimsie, about 15 miles inland, were unroofed. Most beach homes suffered only minor roof damage. Several boats in Galveston Tacht Basin suffered surface damage, and one 33-foot pleasure craft sank in shallow water.									

See reference notes at end of table.

# STORM DATA AND UNUSUAL WEATHER PHENOMENA

SEPTEMBER 1963

PLACE	DATE	TIME	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. OF PERSONS		ESTIMATED <sup>1</sup> DAMAGE		CHARACTER OF STORM
					KILLED	INJURED	PROPERTY	CROPS	
TEXAS (Cont'd)									
Southeast Texas (Cont'd)	<p>Jefferson and Orange Counties were hardest hit by flooding of streams and drainage canals, with most of the flood damage in the Port Arthur-Port Acres area of Jefferson County. Flood waters entered nearly 1,000 homes in Jefferson, Orange, and Newton Counties. Total property damage in Jefferson County was estimated at \$9.3 million. Crop damage, mostly to unharvested rice, estimated at \$100,000. In Orange County, total property damage was estimated at \$2 million. Flooding at Mauriceville ranged up to four feet in depth. Many homes had water 18 inches above floor level. Property damage was estimated at \$125,000 in Newton County. In Chambers County, property damage was estimated at \$25,000. Crop damage to unharvested rice, estimated at \$275,000. Galveston County property damage estimated at \$25,000. There was no significant storm damage to property in Harris County.</p> <p>Total storm damage to Crops was estimated at \$0.5 million, mostly to unharvested rice. Fortunately, about 81 per cent of the rice was already combined with most of second cuttings remaining to be harvested when the hurricane struck. There were no livestock losses.</p>								
UTAH									
Summit and San Juan Counties	9	Late Afternoon			1	1	4		Lightning
	<p>Lightning struck and killed a 14-year old boy on a football playing field at Blanding and injured his companion. Lightning also struck a large barn in the vicinity of Kanab, destroying it and over 35 tons of hay, 4 calves, farm machinery and causing some damage to surrounding buildings.</p>								
VERMONT									
State	12	6-8 P.			0	0	4	0	Wind
	<p>Wind gusting up to 50 m.p.h. or higher in some areas caused widespread instances of fallen trees and limbs. Utility outages, damaged roofs, and a crushed auto resulted. A number of boats were swamped and a cruiser sank. Some windows were broken in homes.</p>								
U. S. VIRGIN IS.									None reported
VIRGINIA									None reported
WASHINGTON									No report received by printing deadline
WEST VIRGINIA									None reported
WISCONSIN									
LaFayette, Green Counties	2	5-6 PM	10	Narrow			5		Tornado
	<p>Touched down number of times as it traveled from Lamont to 3 miles east of Argyle. Damage in Argyle and to 10 farms.</p>								
Madison	2	5:25 PM							Funnel
	<p>Sighted just north of Trux Field.</p>								
Dane County	2	6:30 PM		Narrow			4		Tornado
	<p>Touched down in rural Mascamie, rural Waunakee, and rural Sun Prairie, a distance of 40 miles.</p>								
Marquette County	2	6:30 PM					3		Tornado
	<p>Touched down in Town of Buffalo, minor damage to 3 farms.</p>								
Monroe	2	6 PM							Hail
	<p>1-inch diameter</p>								
Laona	19	6 PM	1	Narrow			4		Tornado
	<p>Through Village of Laona.</p>								
WYOMING									
Fremont County	20	Nighttime			0	0	*4	C	Heavy rains
	<p>Heavy rains in the Crowheart-Dubois area caused flash flooding with considerable damage to roads, bridges, crops and the irrigation system.</p>								
OREGON									
West of the Cascade Mountains, north central and northeast Oregon	9	Most of the day,			0	1	4	3	Wind, Lightning, Rain
	<p>Wind gusts of 50-75 mph in some areas west of Cascades caused widespread interruptions to power and telephone service; damaged number of buildings; at least one small plane; blew down a considerable number of trees; Lightning struck half dozen homes; injured one person, slightly; burnt out several high-voltage line transformers; started approximately 200 small forest fires, all of which were controlled without significant damage.</p>								
Washington County	15	Afternoon			0	0	3	3	Hail, Heavy Rain
	<p>Heavy, though brief, rain caused considerable erosion in filbert land recently cleared of groundcover vegetation in preparation for harvest. Heavy hail in limited area with stones to inch in diameter damaged some late crops.</p>								

- ° Includes crop damage.
- C Crop damage.
- \* Miles instead of yards.
- \*\* Yards instead of miles.
- + Storm damages are placed in categories varying from 1 to 9 as follows:
  - 1 Less than \$50
  - 2 \$50 to \$500
  - 3 \$500 to \$5,000
  - 4 \$5,000 to \$50,000
  - 5 \$50,000 to \$500,000
  - 6 \$500,000 to \$5,000,000
  - 7 \$5,000,000 to \$50,000,000
  - 8 \$50,000,000 to \$500,000,000
  - 9 \$500,000,000 to \$5,000,000,000.

Note: This publication contains our best information on storms but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Delayed data and corrections will be carried in the June and December issues of this publication.

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